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PATENT APPLICATION

ATTORNEY DOCKET NO. 200313005-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Steven S. HOMER

Confirmation No.: 7413

Application No.: 10/814,538

Examiner: Holton, Steven E.

Filing Date: March 31, 2004

Group Art Unit: 2629

Title: COMPUTER INPUT PEN APPARATUS

Mail Stop Appeal Brief - Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF REPLY BRIEF

Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on April 15, 2008.

This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

No fee is required for filing of this Reply Brief.

If any fees are required please charge Deposit Account 08-2025.

Respectfully submitted,
Steven S. HOMER

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**APPEAL FROM THE EXAMINER TO THE BOARD
OF PATENT APPEALS AND INTERFERENCES**

In re Application of: Steven S. HOMER Confirmation No.: 7413
Serial No.: 10/814,538
Filing Date: March 31, 2004
Group Art Unit: 2629
Examiner: Holton, Steven E.
Title: COMPUTER INPUT PEN APPARATUS
Docket No.: 200313005-1

MAIL STOP: APPEAL BRIEF-PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

REPLY BRIEF

Appellant respectfully submit this Reply Brief in response to the Examiner's
Answer mailed April 15, 2008, pursuant to 37 C.F.R. § 1.193(b).

STATUS OF CLAIMS

Pursuant to a final Office Action mailed July 25, 2007 (hereinafter the "Final Office Action"), Claims 1-8 and 17-21 stand rejected. Claims 9-16 are considered allowable. Claims 1-8 and 17-21 are presented for appeal.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-8 and 17-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,215,480 issued to Danis et al. (hereinafter "*Danis*").

ARGUMENT**Rejection under 35 U.S.C. §103(a) in view of *Danis***

In the Examiner's Answer, the Examiner maintains his rejection of Claims 1-8 and 17-21 under 35 U.S.C. §103(a) as being unpatentable over *Danis*. Appellant respectfully disagrees.

a. **Claims 1 and 4**

Embodiments of the present invention are directed toward a computer input pen apparatus that is configured to inhibit and/or substantially prevent rolling of the pen even though the pen is cylindrically shaped. Thus, in some embodiments, the computer input pen apparatus (10) comprises a weight (20, 50) that is eccentrically disposed within a cylindrical housing (12) of the pen (10) and where a desired level of friction is provided relative to the weight (20, 50) to absorb any rotational energy resulting from rolling of the pen (10). Accordingly, for example, independent Claim 1 recites "a weight eccentrically disposed within [a] cylindrical housing" where the "weight [is] rotationally coupled relative to the cylindrical housing with a desired level of friction to absorb rotational energy of the cylindrical housing relative to the weight" (emphasis added).

Danis appears to disclose a cylindrical body 10 in the shape of a writing device that is directed toward displaying content over 180° of the body (such as text 17) such that as the body 10 rolls, the text scrolls (*Danis*, column 2, lines 14-35, figure 1). *Danis* appears to disclose a mouse-type rotation sensor 31 having a weighted cam 32 disposed within the body 10 of *Danis* that is used to detect the rotation or rolling of the body 10 of *Danis* (the direction and speed of such rolling movement) so that the displayed content may be correspondingly scrolled (*Danis*, column 3, lines 28-45, figure 3).

In an office action dated January 24, 2007, the Examiner stated:

[I]t would be obvious to one skilled in the art that the weighted cam would create friction with the interior walls of the pen body and absorb some of the rotational energy of the cylindrical housing relative to the weight. The friction between the cam and the cylindrical body would then inhibit the movement of the weight and the amount of friction would be chosen so that the weight moved enough within the body to keep the display facing the desired angle as the pen body is rotated.

(page 2). In the Final Office Action, the Examiner further states:

Danis does not discuss the amount of friction between the weighted cam and the cylindrical housing; however, the amount of friction between the weight and the cylindrical housing would be set at "a desired level of friction to absorb rotational energy". The amount of friction between the housing and the weight would be selected to a desired level so that the amount of absorbed rotational energy would not inhibit the operation of the scrolling of the display text based on the rotation of the weight. The amount of friction between the cylindrical housing and the weight would be set to a relatively low desired level of friction.

(Final Office Action, pages 2 and 3). Appellant respectfully submits that Claim 1 is patentable over *Danis*.

In the Final Office Action, the Examiner appears to acknowledge that in the *Danis* device, a very low level of friction would be desired relative to the weighted cam 32 of *Danis* (Final Office Action, pages 2 and 3). In fact, it would appear that no amount of friction would be preferred relative to the weighted cam 32 in *Danis* so that when the *Danis* device is rolled along a surface, the weighted cam 32 of *Danis* freely rotates within the housing of the *Danis* device so that an accurate determination of the amount of device roll is obtained, thereby enabling the text scrolling to correspond to the amount of device roll. Accordingly, the Examiner appears to misconstrue the teachings of *Danis* in view of Claim 1. Claim 1 recites that the "weight [is] rotationally coupled relative to the cylindrical housing with a desired level of friction to absorb rotational energy of the cylindrical housing relative to the weight" (emphasis added). In contrast, in the *Danis* device, the weighted cam would clearly be preferred to not absorb rotational energy of the rolling *Danis* device.

Furthermore, the purpose of having a weight rotationally coupled relative to the cylindrical housing with a desired level of friction to absorb rotational energy of the cylindrical housing relative to the weight is to prevent a cylindrical shaped pen from rolling even on a sloped surface. (See, Specification, page 1, par. [0001]). *Danis* does not appear to disclose or even suggest having this limitation as alleged by the Examiner because *Danis* discloses that "a slight knurling (e.g., bumps) on the rubber traction rings 11 and 12 can be provided to prevent the pen-like structure from rolling off a table or

other substantially horizontal surface when the user takes his or her hand off the device.” (*Danis*, col. 2, lines 17-20) (emphasis added). Thus, the weight of *Danis* is clearly not designed to absorb rotational energy by having a desired level of friction.

Moreover, in the Examiner’s Answer, the Examiner appears to make several unsupported and/or improper assumptions. For example, the Examiner states “The weight rotates within the cylindrical housing to measure the rotational energy of the cylindrical housing.” (Examiner’s Answer, p. 3). The weight in *Danis* does not appear to rotate. The purpose of having a “weighted” cam is so the cam does not rotate. *Danis* clearly states “As the display is rotated, the weighted cam causes the sensor mechanism to rotate internally and generate an output to the display electronics.” *Danis*, col. 3, lines 32-34. Thus, the sensor mechanism, which is labeled 31 in figure 3, rotates internally and not the weighted cam. The weighted cam stays in a relatively fix position so that the “direction and speed of the rotation” can be determined so that the display is scrolled accordingly. See, *Danis*, col. 3, lines 34-36.

Additionally, the Examiner states “*Danis* does not discuss the amount of friction between the weighted cam and the cylindrical housing.” (Examiner’s Answer, p. 3) Appellant agrees. The Examiner then continues and makes an unsupported assumption that “the amount of friction between the weighted cam and the cylindrical housing would be set at a desired level of friction to absorb rotational energy.” *Id.* Friction between the weighted cam and the cylindrical housing would appear to cause the weighted cam to move when the cylindrical housing rolls and, thus, would adversely affect the displaying of the corresponding scrolled text on the display. Therefore, not only does *Danis* not discuss the amount of friction between the weighted cam and the cylindrical housing, *Danis* appears to teach away from having a desired level of friction between the weighted cam and the cylindrical housing.

Furthermore, the Examiner states “It is commonly known that any two surfaces that are in contact with each other produce friction at the point of contact.” (Examiner’s Answer, p. 5). The Examiner then states “The device describe by *Danis* would desire a low level of friction between the weight and the housing, but the basic nature of the device would mean that some amount of rotational energy would be absorbed by the contact between the weight and the cylindrical housing.” *Id.* (emphasis added). The Examiner appears to improperly consider only a single word of Claim 1 under this

rationale, namely, friction, instead of evaluating Claim 1 as a whole. Again, in *Danis*, any friction, even at a low level, would cause the weighted cam to move when the cylindrical housing rolls and, thus, would adversely affect the displaying of the corresponding scrolled text on the display. In contrast Claim 1 recites that the weight is rotationally coupled “with a desired level of friction to absorb rotational energy” (emphasis added). *Danis* clearly does not disclose or even suggest this limitation. In fact, *Danis* teaches away.

In addition, the Examiner makes the unsupported assumption that *Danis*’ weighted cam 32 comes in contact with the cylindrical housing 10. *Danis* is devoid of any such disclosure. *Danis* states that “sensor (31) is mounted within the hollow body of the display” (*Danis*, col. 3, lines 29-30). *Danis* does not disclose or even suggest that the weighted cam 32 comes in contact with the cylindrical housing 10. As stated above, contact between weighted cam 32 and cylindrical housing 10 would result in undesired friction and adversely affect the scrolling display. The Examiner improperly assumes facts not disclosed or even suggested by *Danis*.

Finally, the Examiner appears to rely on conflicting arguments in rejecting the claims. For example, in regard to Claim 1, the Examiner states that “the amount of friction between the cylindrical housing and the weight would be set to a relatively low desired level of friction.” (Examiner’s Answer, p. 3) (emphasis added). However, in rejecting Claim 2, the Examiner flips and states “If the weighted cam were allowed to rotate with extremely low levels of friction, any rotation of the cylindrical housing would result in unwanted changing of the display device based on extra rotation of the sensor.” (Examiner’s Answer, p. 6) (emphasis added). Thus, these statements appear to be in direct conflict with each other. On one hand, the Examiner states that *Danis* would desire a relatively low level of friction between the cylindrical housing and the weight, and on the other hand, the Examiner states that low levels of friction would result in unwanted changing of the display device.

Thus, not only does *Danis* not disclose, teach or even suggest the limitations of Claim 1, *Danis* appears to clearly teach away from the limitation that the “weight [is] rotationally coupled relative to the cylindrical housing with a desired level of friction to absorb rotational energy of the cylindrical housing relative to the weight” as recited by

Claim 1 (emphasis added). Accordingly, for at least the reasons presented above, Claim 1 is patentable over *Danis*.

Claim 4 depends from Claim 1. For at least the reasons presented above *vis-à-vis* Claim 1, Claim 4 is also patentable over *Danis*.

b. Claim 2

Claim 2 recites "a frictional element disposed on a surface of the weight." In the Examiner's Answer, the Examiner states:

There must be some amount of friction within the system for measuring the rotation of the display device. If the weighted cam were allowed to rotate with extremely low levels of friction, any rotation of the cylindrical housing would result in unwanted changing of the display device based on extra rotation of the sensor. Different methods of reducing the amount of rotation would be obvious to one of ordinary skill in the art. This could include making it more difficult for the cam to rotate by increasing the friction applied to the weighted cam or allowing friction between the housing and the weight cam to slow the rotation of the cam. As discussed in the previous section, the use of lubricants and specific materials could be chose to produce a desired amount of friction between the housing and the weight. Because all surfaces have some amount of friction, it would be obvious that the surface of the weight could be applied with a rough surface to increase the amount of friction or the inside of the housing could be made with a rough surface, or any other surface connection within the device could be made with a rough surface to increase friction between elements. (Examiner's Answer, pp. 6-7).

Again, the Examiner makes the unsupported assumption that there must be some friction between the cylindrical housing and the weighted cam within the *Danis* device. As previously stated, *Danis* does not disclose or even suggest that there is any contact whatsoever between the cam 32 of *Danis* and any other portion of the *Danis* device that would even necessitate the inclusion of a frictional element on the weighted cam 32 of *Danis*. Accordingly, *Danis* does not provide a basis for the assumptions made by the Examiner. In fact, as stated above, *Danis* teaches away from the Examiner's unsupported assumptions at least because friction would adversely affect the scrolling display of *Danis*. Therefore, for at least the reasons presented above, Claim 2 is patentable over *Danis*.

c. Claim 3

Claim 3 recites "a frictional element disposed on an interior surface of the cylindrical housing." In the Examiner's Answer, the Examiner states:

These arguments are related to different embodiments of the invention regarding the location and formation of a frictional element on different surfaces. The knowledge required to place a frictional surface on one element could be similarly applied to other surfaces within the device using known techniques. Therefore, the arguments provided above with regard to argument b could be modified to apply to the limitations of the related arguments. (Examiner's Answer, p. 7).

The Examiner appears to maintain his rejection of Claim 3 based on the unsupported and incorrect assumption that there must be some friction between the cylindrical housing and the weighted cam within the *Danis* device. However, *Danis* does not appear to disclose or even suggest that there is friction between the cylindrical housing and the weighted cam. Moreover, as stated above, friction between the cylindrical housing and the weighted cam would adversely affect the scrolling display of the *Danis* device. Thus, *Danis* clearly teaches away from the assumptions made by the Examiner. Accordingly, for at least the reasons presented above, Claim 3 is patentable over *Danis*.

d. Claim 5

Claim 5 recites "a frictional element disposed on a surface of the weight relative to the shaft." In the Examiner's Answer, the Examiner maintains his rejection for the same reason as presented above in regards to Claim 3.

Danis appears to disclose a rotation sensor 31 having a shaft extending outwardly therefrom which connects to the weighted cam 32 of *Danis* (*Danis*, column 3, lines 28-46, figure 3). Appellant presumes that for the rotation sensor 31 to accurately read the rotation of the *Danis* device, the weighted cam 32 must be fixedly coupled to the connecting shaft. Accordingly, not only does *Danis* not disclose or even suggest the inclusion of a frictional element on the weighted cam of *Danis*, but there is clearly no reason to include a frictional element on the surface of weighted cam relative to the connecting shaft of *Danis* at least because the weighted cam of *Danis* is fixedly coupled to the connecting shaft. Again, the Examiner relies on the assumption that there must be friction between every element of the *Danis* device in maintaining his rejection.

However, *Danis* does not provide support for this assumption and in fact, appears to teach away. Accordingly, for at least these reasons, Appellant respectfully submits that Claim 5 is patentable over *Danis*.

e. Claim 6

Claim 6 recites "a frictional element disposed on a surface of the shaft relative to the weight." In the Examiner's Answer, the Examiner maintains his rejection for the same reason as presented above in regards to Claim 3.

As previously stated, *Danis* not disclose or even suggest the inclusion of a frictional element disposed on a surface of the shaft relative to the weight of *Danis*. Further, there clearly is no reason to include a frictional element on the connecting shaft relative to the weighted cam of *Danis* at least because the weighted cam of *Danis* is fixedly coupled to the connecting shaft. In fact, as discussed above in connection with Claim 1, *Danis* clearly teaches away from including a frictional element on the connecting shaft at least because the friction would adversely affect the scrolling display of the *Danis* device because of the inhibited rotation of the weighted cam 32 of *Danis* within the *Danis* device. Therefore, for at least these reasons, Appellant respectfully submits that Claim 6 is patentable over *Danis*.

f. Claim 7

Claim 7 recites "a frictional element integrally formed on a surface of the weight." In the Examiner's Answer, the Examiner maintains his rejection for the same reason as presented above in regards to Claim 3.

Again, *Danis* not disclose or even suggest the inclusion of "a frictional element integrally formed on a surface of the weight" as recited in Claim 7. As stated above, including a frictional element on a surface of the weight would adversely affect the scrolling display of the *Danis* device because of the inhibited rotation of the weighted cam 32 of *Danis* within the *Danis* device. Thus, *Danis* clearly teaches away from including a frictional element on a surface of the weight of the *Danis* device, much less that the frictional element is integrally formed on the surface of the weight. For at least these reasons, Appellant respectfully submits that Claim 7 is patentable over *Danis*.

g. Claim 8

Claim 8 recites "a frictional element integrally formed on an interior surface of the cylindrical housing." In the Examiner's Answer, the Examiner maintains his rejection for the same reason as presented above in regards to Claim 3.

As stated above, *Danis* not disclose or even suggest the inclusion of "a frictional element" between of the weighted cam 32 and the cylindrical housing of the *Danis* device. As stated above, friction between of the weighted cam 32 and the cylindrical housing of the *Danis* device would adversely affect the scrolling display of the *Danis* device because of the inhibited rotation of the weighted cam 32 of *Danis* within the *Danis* device. Thus, *Danis* clearly teaches away from having friction between of the weighted cam 32 and the cylindrical housing of the *Danis* device, much less the inclusion of "a frictional element integrally formed on an interior surface of the cylindrical housing" as recited in Claim 8. Consequently, for at least these reasons, Appellant respectfully submits that Claim 8 is patentable over *Danis*.

h. Claims 17 and 18

Of the rejected claims, Claim 17 is independent. Appellant respectfully submits that independent Claim 17 is patentable over *Danis* and, therefore, Claim 18 that depends from independent Claim 17 is also patentable over *Danis*. In the Examiner's Answer, the Examiner maintains his rejection of Claims 17 and 18 for the same reason as presented above in regards to Claims 1 and 4.

Independent Claim 17 recites "means for moveably and eccentrically disposing a weight within a cylindrical housing" and "means for providing a desired level of friction to absorb energy resulting from movement between the weight and the cylindrical housing" (emphasis added). As previously stated, *Danis* does not appear to disclose or even suggest "a desired level of friction", much less that the desired level of friction "absorb energy resulting from movement between the weight and the cylindrical housing" as recited in Claim 17. Thus, for at least the reasons presented above *vis-à-vis* Claim 1, Claim 17 is also patentable over *Danis*. Claim 18 depending from Claim 17 is therefore also patentable over *Danis*.

i. Claim 19

Claim 19 recites "wherein the friction means comprises means integrally formed on a surface of the weight." In the Examiner's Answer, the Examiner maintains his rejection of Claim 19 for the same reason as presented above in regards to Claim 2.

Danis not disclose or even suggest the inclusion of "a friction means," much less that the frictional means is "integrally formed on a surface of the weight" as recited in Claim 19. As stated above, including a friction means on a surface of the weighted cam 32 would adversely affect the scrolling display of the *Danis* device because of the inhibited rotation of the weighted cam 32 of *Danis* within the *Danis* device. Thus, *Danis* clearly teaches away from including a friction means that is integrally formed on a surface of the weight of the *Danis* device. For at least these reasons and those presented *vis-à-vis* Claim 2, Appellant respectfully submits that Claim 19 is patentable over *Danis*.

j. Claim 20

Claim 20 recites "wherein the friction means comprises means integrally formed on an interior surface of the cylindrical housing." In the Examiner's Answer, the Examiner maintains his rejection of Claim 20 for the same reason as presented above in regards to Claim 2.

Again, *Danis* not disclose or even suggest the inclusion of "a friction means," much less that the friction means is "integrally formed on an interior surface of the cylindrical housing" as recited in Claim 20. As stated above, friction between of the weighted cam 32 and the cylindrical housing of the *Danis* device would adversely affect the scrolling display of the *Danis* device because of the inhibited rotation of the weighted cam 32 of *Danis* within the *Danis* device. Thus, *Danis* clearly teaches away from having "a friction means," much less that the friction means is "integrally formed on an interior surface of the cylindrical housing" as recited in Claim 20. Consequently, for at least these reasons and those presented *vis-à-vis* Claim 2, Appellant respectfully submits that Claim 20 is patentable over *Danis*.

k. Claim 21

Claim 21 recites "wherein the friction means comprises means formed on a shaft disposed along a longitudinal axis of the cylindrical housing and adapted to engage a

corresponding surface of the weight." In the Examiner's Answer, the Examiner maintains his rejection of Claim 21 for the same reason as presented above in regards to Claim 2.

As previously stated, *Danis* not disclose or even suggest the inclusion of "a friction means," much less that the friction means is "formed on a shaft disposed along a longitudinal axis of the cylindrical housing and adapted to engage a corresponding surface of the weight" as recited in Claim 21.. Further, *Danis* provides no reason to include a friction means on the connecting shaft relative to the weighted cam of *Danis* at least because the weighted cam of *Danis* is fixedly coupled to the connecting shaft. As discussed above in connection with Claim 1, *Danis* clearly teaches away from including a friction element on the connecting shaft at least because the friction would adversely affect the scrolling display of the *Danis* device because of the inhibited rotation of the weighted cam 32 of *Danis* within the *Danis* device. Therefore, for at least these reasons, Appellant respectfully submits that Claim 21 is patentable over *Danis*.

CONCLUSION

Appellant has demonstrated that the present invention as claimed is clearly distinguishable over the art cited of record. Therefore, Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

No fee is believed due with this Reply Brief. If, however, Appellant has overlooked the need for any fee, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 08-2025 of Hewlett-Packard Company.

Respectfully submitted,

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Date: June 5, 2008

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